



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/576,384	06/09/2006	Clive Erskine	06142.0005U1	1866
23859 7590 03/05/2008 NEEDLE & ROSENBERG, P.C. SUITE 1000 999 PEACHTREE STREET ATLANTA, GA 30309-3915				
EXAMINER				
MI, QIUWEN				
ART UNIT		PAPER NUMBER		
1655				
MAIL DATE		DELIVERY MODE		
03/05/2008		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/576,384

**Applicant(s)**

ERSKINE, CLIVE

**Examiner**

QIUWEN MI

**Art Unit**

1655

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12/13/08.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15 and 17-23 is/are pending in the application.
- 4a) Of the above claim(s) 1-14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 15 and 17-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

Applicant's amendment in the reply filed on 12/13/07 is acknowledged. Any rejection that is not reiterated is hereby withdrawn.

### **Claims Pending**

Claims 22 and 23 are newly submitted, which are drawn to the elected Group III. Claim 16 is cancelled. Claims 1-15, and 17-23 are pending. Claims 1-14 are withdrawn. Claims 15, and 17-23 are examined on the merits.

### **Claim Rejection 112, 1<sup>st</sup>**

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 15, and 17-21 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 15 recites “contacting the extractant with a **plant material** to form an extract including compounds from the plant material”.

To provide adequate written description and evidence of possession of a claimed invention, the specification must provide sufficient distinguishing identifying characteristics of the invention. The factors to be considered include disclosure of complete or partial structure, physical and/or chemical properties, functional characteristics, structure/function correlation, methods of making the claimed product, or any combination thereof. In the instant case, the invention only provides the description of some Australian native plant genus such as *Callitris*, *Tasmannia*, *Leptospermum*, *Prostanthera*, *Rhodamnia*, *Eremophila*, *Melaleuca*, *Phebalium*, *Eucalyptus*, *Acacia*, and some examples of species, and no description regarding the whole plant kingdom, which encompasses at least 350,000 species, according to Wikipedia online, or a representative number of the whole plant kingdom, is being disclosed in the specification. It is not clear exactly what other plant materials Applicant is referring to, except the samples given in page 8 of the specification. Accordingly, in the absence of sufficient recitation of the plant materials, the specification does not provide adequate written description of the claimed invention.

Vas-Cath Inc. v. Mahurkar, 19USPQ2d 1111, clearly states “applicant must convey with reasonable clarity to those skilled in the art that, as of the filing date sought, he or she was in possession of the invention. The invention is, for purposes of the ‘written description’ inquiry, whatever is now claimed. The specification does not “clearly allow persons of ordinary skill in

the art to recognize that [he or she] invented what is now is claimed.” (See *Vas-Cath* at page 1116). As discussed above, the skilled artisan cannot envision the detailed compound being claimed, and therefore conception is not achieved until reduction to practice has occurred, regardless of the complexity or simplicity of the compound. Adequate written description requires more than a mere statement of the total amount of the plant material being used. See *Fiers v. Revel*, 25USPQ2d 1601 at 1606 (CAFC 1993) and *Amgen Inc. v. Chugai Pharmaceutical Co. Ltd.*, 18USPQ2d 1016.

The description requirement of the patent statute requires a description of an invention, not an indication of a result that one might achieve if one made that invention. See *In re Wilder*, 736, F. 2d 1516, 1521, 222 USPQ 369, 372-73 (Fed. Cir. 1984) (affirming rejection because the specification does “little more than outline [goals] appellants hope the claimed invention achieves and the problems the invention will hopefully ameliorate.”) Accordingly, it is deemed that the specification fails to provide adequate written description for the claims and does not reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed had possession of the claimed invention.

All other cited claims depend directly or indirectly from rejected claims and are, therefore, also, rejected under U.S.C. 112, first paragraph for the reasons set forth above.

### **Claim Rejections –35 USC § 112, 2<sup>nd</sup>**

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 15, and 17-21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 15 recites “contacting the extractant with **a plant material** to form an extract including compounds from the plant material”. First of all, it is not clear what Applicant means by “form an extract”, it could mean the mixture of plant material and the solvent, or it could mean the concentrate after the extraction wherein solvent has been removed. Second, it is not clear what Applicant means by “including compounds from the plant material”. Since the extractant will extract the compounds from the plant material, of course the compounds from plant material will be in the extract. Even if in the first case, wherein Applicant means the mixture of plant material and solvent, since the plant material is in the mixture, the compounds which are contained in the plant material should also be in the mixture. Therefore, the metes and bounds of claims are rendered vague and indefinite, and the lack of clarity renders the claims very confusing and ambiguous.

All other cited claims depend directly or indirectly from rejected claims and are, therefore, also, rejected under U.S.C. 112, second paragraph for the reasons set forth above.

#### **Claim Rejections –35 USC § 102**

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 15, 17, 18, and 20 are rejected under 35 USC § 102 (b) as being anticipated by Grinda et al (US 4,698,222).

Grinda et al. disclose a method of extracting a natural insecticidal substance from a plant containing the insecticidal substance which comprises contacting powdered dry parts of the plant with an alkyl or alkenyl ester of a fatty acid, in which the ester moiety contains 1-16 carbons (see claim 1). Grinda et al. also teach that the ester is methyl, ethyl, propyl, isopropyl, butyl, hexyl, and octyl etc (see claim 3). Grinda et al. further teach that the product serves as spray for plants in order to protect them against insect (col 3, lines 5-10). It is inherent that the fatty acid ester is produced by esterification of an animal or vegetable oil. Grinda et al also teach using sodium lauryl sulfonate as emulsifier (Example 5) and using nonyl-phenyl-polyoxyethylene as surface active agent in Example 8 (thus surfactant). At last Grinda et al teach 350 g of chloroform (thus solvent) was added to 200 g of derris, reduced to a fine powder (plant material).

Therefore, the reference is deemed to anticipate the instant claim above.

Applicant argues that Ginda et al does not teach or suggest the use of a surfactant with the extractant prior to contacting the mixture with plant material (page 6, 3rd paragraph). Applicant's argument is not found persuasive. Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.

With respect to the art rejection above, please note that Patent and Trademark Office is not equipped to conduct experimentation in order to determine whether Applicants' method differs and, if so, to what extent, from that of discussed references. Therefore, with the showing of the references, the burden of establishing non-obviousness by objective evidence is shifted to the Applicants.

### **Claim Rejections –35 USC § 103**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 15, and 17-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grinda et al (US 4,698,222) in view of WO 01/15534, further in view of Hamanaka (JP 2002206099).

Grinda et al. disclose a method of extracting a natural insecticidal substance from a plant containing the insecticidal substance which comprises contacting powdered dry parts of the plant with an alkyl or alkenyl ester of a fatty acid, in which the ester moiety contains 1-16 carbons (see claim 1). Grinda et al. also teach that the ester is methyl, ethyl, propyl, isopropyl, butyl, hexyl, and octyl etc (see claim 3). Grinda et al. further teach that the product serves as spray for plants in order to protect them against insect (col 3, lines 5-10). It is inherent that the fatty acid ester is produced by esterification of an animal or vegetable oil. Grinda et al also teach using sodium



lauryl sulfonate as emulsifier (Example 5) and using nonyl-phenyl-polyoxyethylene as surface active agent in Example 8 (thus surfactant). At last Grinda et al teach 350 g of chloroform (thus solvent) was added to 200 g of derris, reduced to a fine powder (plant material).

Grinda et al. do not teach a composition further comprising a pesticidally active polar oil, the plant material *Tasmannia stipitata*, or contacting plant material with surfactant.

WO 01/15534 discloses an insecticidal composition that includes *Tasmannia stipitata* extract in combination with an insecticidally effective oil such as vegetable oil (polar oil) etc. The *Tasmannia stipitata* extract enhances the insecticidal activity of the oil (see Abstract). WO 01/15534 also teaches that the composition is applied to the insect population by spraying (claim 8), and the extract was dissolved in ethanol (solvent) (page 3, lines 10-15). WO 01/15534 further teaches that the combination of *Tasmannia stipitata* extract and insecticidally effective vegetable oil have been found to have unexpected synergistic activity as insecticides (page 1, lines 25-30).

Hamanaka teaches extracting *alpinia speciosa* component for use as insect repellent, involves immersing *Alpinia speciosa* in a solution containing surfactants, at specified temperature by mixing, stirring, stirring and shaking frequently (see Title). Hamanaka also teaches that the method enables to provide an efficient extraction of *Alpinia speciosa* in reliable manner. The product containing the *Alpinia speciosa* extract has excellent stability (see Abstract, full translation has been ordered).

It would have been *prima facie* obvious for one of ordinary skill in the art at the time the invention was made to use the pesticidally active vegetable oil (polar oil), solvent ethanol, and plant material *Tasmannia stipitata* from WO 01/15534 in the invention of Grinda et al since WO

01/15534 teaches that the combination of *Tasmannia stipitata* extract and insecticidally effective vegetable oil have been found to have unexpected synergistic activity as insecticides. Since both of the inventions teach pesticides from plant material individually in the art, and since both of the compositions yielded beneficial results in pest control, one of ordinary skill in the art would have been motivated to make the modifications.

It would have been *prima facie* obvious for one of ordinary skill in the art at the time the invention was made to use the method of immersing plant material in a solution containing surfactant from Hamanaka to make insect repellent since Hamanaka teaches that the method provides an efficient extraction of plant material in reliable manner and the product containing the plant material has excellent stability. Since Hamanaka yielded beneficial results in making insect repellent, one of ordinary skill in the art would have been motivated to make the modifications.

From the teachings of the references, it is apparent that one of the ordinary skills in the art would have had a reasonable expectation of success in producing the claimed invention.

Thus, the invention as a whole is *prima facie* obvious over the references, especially in the absence of evidence to the contrary.

Applicant's arguments with respect to using surfactant in the amended claims (pages 7-8) have been considered but are moot in view of the new ground(s) of rejection in light of Hamanaka.

---

### **Conclusion**

No claim is allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Qiuwen Mi whose telephone number is 571-272-5984. The examiner can normally be reached on 8 to 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terry McKelvey can be reached on 571-272-0775. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Qiuwen Mi

/Patricia Leith/

Primary Examiner, Art Unit 1655